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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/581,997	09/07/2000	Harri Lehtonen	023600-227	7978

21839 7590 06/02/2003

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EXAMINER

JOYCE, WILLIAM C

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 06/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/581,997	Applicant(s) LEHTONEN, HARRI	
	Examiner William C. Joyce	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the amendment filed March 12, 2003 for the above identified patent application.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Tuneblom (US Patent 3,722,381).

Tuneblom discloses a vibrating device comprising a shaft (68) having shaft sections (56) attached to both ends of the shaft by a joint, each shaft section supported by one bearing (58), an eccentric weight (12,14) connected to the shaft, wherein the joint is rigid and adapted to transmit bending moment. Note, the claim language does not preclude a device having two bearings. Examiner suggests amending the claim from "one bearing" to --only one bearing--.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Niklewski (US Patent 5,220,846).

Referring to Figure 3, Niklewski discloses a conventional vibrating device comprising a shaft (7) having shaft sections (4) attached to both ends of the shaft by a

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joint, each shaft section supported by one bearing (3a), an eccentric weight (6) connected to the shaft, wherein the joint is rigid and adapted to transmit bending moment.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 5, and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuneblom (US Patent 3,722,381) as applied to claims 1-3 above, and further in view of Redinger (US Patent 1,615,233).

Tuneblom does not disclose the join as having an axial screw or having conical surfaces, but joining two rotary components by the claimed joint was known in the art. For example, the prior art to Redinger disclose a conical joint having an axial screw. It would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the shafts of Tuneblom with a joint having an axial screw and conical surfaces, as taught by Redinger, motivation being to provide a secure and reliable joint between components.

6. Claims 4, 5, and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niklewski (US Patent 5,220,846) as applied to claims 1-3 above, and further in view of Redinger (US Patent 1,615,233).

Niklewski does not disclose the join as having an axial screw or having conical surfaces, but joining two rotary components by the claimed joint was known in the art. For example, the prior art to Redinger disclose a conical joint having an axial screw. It would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the shafts of Niklewski with a joint having an axial screw and conical surfaces, as taught by Redinger, motivation being to provide a secure and reliable joint between components.

7. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuneblom (US Patent 3,722,381) as applied to claims 1-3 above.

Tuneblom discloses the shaft connected by a spline joint but does not disclose the join as having surfaces in the shape of a pyramid. However joining two rotary components by corresponding surfaces was known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to joint the shaft components of Tuneblom with a joint having a joint with surfaces formed as a pyramid and having an axial screw, as is known in the art, motivation being to provide a rigid and reliable joint between components.

8. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niklewski (US Patent 5,220,846) as applied to claims 1-3 above.

Niklewski discloses the shaft connected by a spline joint but does not disclose the join as having surfaces in the shape of a pyramid. However joining two rotary components by corresponding surfaces was known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to joint the shaft components of Niklewski with a joint having a joint with surfaces formed as a pyramid and having an axial screw, as is known in the art, motivation being to provide a rigid and reliable joint between components.

Response to Arguments

9. Applicant's arguments filed March 12, 2003 have been fully considered but they are not persuasive. The argument that Tuneblom is configured with two bearings for supporting each shaft section does not overcome the rejection because it teaches the limitation "one bearing". If applicant intends to preclude a device having more than one bearing, examiner suggests changing the limitation "one bearing" to --only one bearing--

The argument that Figure 3 of Niklewski teaches each shaft section supported by a pair of bearings is not persuasive because Figure 3 illustrates a single bearing inasmuch as applicant's device illustrated in Figures 1-3 is supported by a single bearing. More clearly, Figure 3 of Niklewski illustrates a single bearing assembly having


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a single outer race for supporting two rows of rolling members, and therefore is considered to be a single bearing assembly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (703) 305-5114. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

 5/28/03
William C. Joyce
May 29, 2003